KONSENTRASI TIMBAL (Pb) DALAM TANAH AKIBAT EMISI KENDARAAN BERMOTOR BERDASARKAN JARAK DAN KEDALAMAN (STUDI KASUS JALAN BRIGJEN SUDIARTO SEMARANG Km 3-4)

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Abstract

The increase of land transportation activity can result an environmental problem. One of them caused by presence of lead (Pb) in the environment. Lead is heavy metal which has toxic characteristic and can be used as a gasoline additive to increase gasoline octan number. The increase of lead (Pb) concentration make an environmental problem, include in soil. Soil is contaminated by lead from various sources. One of them by means of air lead as a result from motor vehicles emission that use leaded gasoline and than will be removed to soil because of rainfall.

This research was conducted in Brigjen Sudiarto Street Semarang Km 3-4 varied with depth of soil and distance from the road where 21 soil samples were collected within a depth of 0-4 cm, 4-8 cm, 8-12 cm, 12-16 cm from surface soil and distance 1 m, 5 m, 10 m, 15 m, 20 m, and 250 m from road.

Result of research from 21 soil samples indicate that the highest concentration of lead (93,5 mg/kg) occurred from soil sample with nearest distance from road (1m) at 0-4 cm soil depth. Other result show that concentration of soil lead generally decreases as both distance from contaminating sources and soil depth increases.

Keywords: lead, concentration, emission, distance, depth, road, and soil